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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,872	09/11/2000	Ian H. Duncan	98784-US	1351

23553   7590   09/06/2007

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EXAMINER
NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
09/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/509,872	DUNCAN ET AL.
	Examiner	Art Unit	
	Steven H.D Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 August 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*1-8 and 11-21*</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>*1-8 and 11-21*</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1 and 8 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As claim 1, the specification does not disclose a step of "selecting an appropriate forwarding rule based on a source address in said packets <u>and on the incoming service interface from which the packets are received;</u>" .

As claim 8, the specification does not disclose "the multiple route servers for calculating multiple forwarding rules relating to instances of service to which said service interfaces belong based on routing, topology and policing information, the multiple <u>forwarding rules being particular to their respective service interfaces;</u>"

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-8 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yuasa (USP 6085238) in view of Dobbins (USP 5825772) and Dunne (USP 5845091).

Yuasa discloses a method of forwarding packets in a communication system having

multiple incoming service interfaces and multiple output service interfaces for providing service

to multiple distinct and isolated user networks (Fig 14 has the networks H1 and H2 or Fig 18-19,

21-22, 25, 28-30, 32, 37, 41, 45, 58, 62 which discloses a plurality of distinct and isolated user

network and providing multiple protocols "MPOA, see col. 3, lines 15-25"). However, Yuasa

fails to disclose forwarding rules based on the routing topology and policing information

relevant to each of said distinct and isolated user network; receiving the packets at one of

incoming service interfaces; selecting an appropriate forwarding rule based on a source address

in the packet and on the incoming service interface from which the packets are received and

forwarding the packets to one of the output service interfaces, a decision as to which output

service interface to forward the packets to being based on a destination address in the packet and

information in said selected forwarding rule. In the same field of endeavor, Dobbins discloses

maintaining multiple forwarding rules, said forwarding rules based on routing topology and

policing information relevant to each of said distinct and isolated user networks (Fig 7 discloses

a plurality of forwarding rules based on routing topology and policy of the distinct and isolated

network "VLAN or virtual private network", See col. 13, lines 48-59 and col. 17, lines 22-43,

policy information "the packet is forwarded or discarded based on the information of SA and

DA"); receiving said packets at one of said incoming service interfaces (Fig 7a, Ref 100, for

receiving a data packet from an interface); selecting an appropriate forwarding rule based on a

source address in said packets and on the incoming service interface from which the packets are

received and forwarding said packets to one of said output service interfaces (selecting a rule in

order to forward a data packet, based on the source address, to an output interface " the packets is

discarded or forwarded based on the selected rule such as discard and connection "forward rules"

based on routing table "routing topology", col. 17, lines 22-43). However, Yuasa and Dobbins

fail to disclose the decision as to which output service interface to forward the packets to being

based on a destination address in said packets and information in said selected forwarding rule.

In the same field of endeavor, Dunne discloses the forwarding rules based on the routing

topology and policing information relevant to each of said distinct and isolated user network (Fig

12, Router 1210, 1220-1222 includes the forward lists for the sub-networks, See col. 2, lines 27-

42, col. 3, lines 1 to col. 6, lines 15, the forward list is established based on routing topology, col.

4, lines 24-46) and policy information such priority, col. 6, lines 7-14,); receiving the packets at

one of incoming service interfaces (Fig 13, Ref 1305); selecting an appropriate forwarding rule

based on a source address in the packet and on the incoming service interface from which the

packets are received (Fig 13, Ref 1305 the forwarding rule is selected by source address and

implicitly discloses forwarding rule is selected by input interface which the packet is received)

and forwarding the packets to one of the output service interfaces, a decision as to which output

service interface to forward the packets to being based on a destination address in the packet and

information in said selected forwarding rule (Fig 13, Ref 1310).

Since, Dobbins suggests a method and system for forwarding the packets between the

source and destination station in virtual private group or non virtual private group in the internet

using the security function between the distinct and isolated user networks and Yuasa discloses a

system for forwarding the packets between the source and destination station in virtual private

group in the ATM network by using MPOA for passing internet packet over ATM network for

enhancing a security wherein the client address used to determine if the client is authorized to

use the resource. Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention was made to apply a method and system for selecting a forwarding rule

based on the source address for forwarding the data packet as disclosed by Dunne's system into

the access rule of Dobbins's system and Yuasa's system in order to provide a secure intra

communication and redundant link between the networks.

Regarding claim 2, Yuasa discloses service interfaces supports realms each relating to a

specific instance of internetworking service function being public internet access service (Fig 18,

Ref 202, encapsulating, Ref 209, encryption for transmitting packet via internet).

Regarding claim 3, Yuasa discloses specific instance being public Internet access service

(Fig 18, Ref 202, encapsulating, Ref 209, encryption for transmitting packet via internet).

Regarding claim 4, Dobbins discloses the specific instance is VPN service being a

bridged and/or routed and network layer connectivity service (col. 7, lines 48-58).

Regarding claim 5, Dobbins discloses wherein VPN service being a bridged and/or

routed connectivity service (col. 7, lines 48-58).

Regarding claim 6, Dobbins discloses VPN service being network layer connectivity

service (col. 7, lines 48-58).

Regarding claim 7, Yuasa discloses ATM switch (Fig 33, Ref 203a, See col. 46, lines 46-

67).

Regarding claim 8, Yuasa discloses a packet forwarding entry for a communication

system comprising multiple service interfaces providing instances of service to one of said

plurality of distinct and isolated user networks (Fig 14 has the networks H1 and H2 or Fig 18-19,

21-22, 25, 28-30, 32, 37, 41, 45, 58, 62 which discloses a plurality of distinct and isolated user

network and providing multiple protocols "MPOA, see col. 3, lines 15-25"). However, Yuasa

fails to disclose the system includes multiple route servers for calculating multiple forwarding

rules based on routing topology and policing information, the multiple forwarding rules being

particular to their respective service interfaces; and edge forwarders to direct said service

interfaces to user networks based on information in said forwarding rules. In the same field of

endeavor, Dobbins discloses multiple route servers (Fig 19, Ref 195) for calculating multiple

forwarding rules based on routing topology and policing information, the multiple forwarding

rules being particular to their respective service interfaces and edge forwarders (Fig 19, Ref 191)

to direct said service interfaces to user networks based on information in said forwarding rules.

However, Yuasa and Dobbins fail to disclose multiple route servers for calculating multiple

forwarding rules relating to instances of service to which said service interfaces belong based on

routing topology and policing information, the multiple forwarding rules being particular to their

respective service interfaces. In the same field of endeavor, Dunne disclose a method and

system includes forwarding rules relating to instances of service to which said service interfaces

(Fig 12, Router 1210, 1220-1222 includes the forward lists for the sub-networks, See col. 2, lines

27-42, col. 3, lines 1 to col. 6, lines 15, the forward list is selected based on the received packet,

col. 6, lines 7-14 and Fig 13, Ref 1305, 1310).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention was made to apply a method and system for forwarding rules relating to instances of

service to which said service interfaces as disclosed by Dunne's system into the forwarding rule

of Dobbins's system and Yuasa's system in order to provide a secure intra communication and

redundant link between the networks.

Regarding claim 11, Yuasa discloses said service interfaces related to physical and

logical connections (Fig 1, 31, 33, traffic flows such voice and data via ports 41, 2301 of the

switch by using physical and logical connection; See col. 1, lines 29-33 and col. 2, lines 10-17).

Regarding claim 12, Yuasa discloses said logical connections include multiple traffic

flows from one or more ingress ports (Fig 1, 31, 33, traffic flows such voice and data via ports

41, 2301 of the switch by using physical and logical connection; See col. 1, lines 29-33 and col.

2, lines 10-17).

Regarding claim 13, Yuasa discloses one of said instances of service is an

internetworking service function (Fig 18, Ref 202, encapsulating, Ref 209, encryption for

transmitting packet via internet).

Regarding claim 14, Yuasa discloses specific instance being public Internet access

service (Fig 18, Ref 202, encapsulating, Ref 209, encryption for transmitting packet via internet).

Regarding claims 15-16, Dobbins discloses VPN service being a bridged and/or routed

and network layer connectivity service (col. 7, lines 48-58).

Regarding claims 17-21, Yuasa discloses ATM switch with multiple protocols such

MPOA, support both frame and packet and manage by single provider (Fig 33, Ref 203a, See

col. 46, lines 46-67).

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven H.D Nguyen whose telephone number is (571) 272-3159.

The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jayanti Patel can be reached on (571) 272-2988. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven H.D Nguyen
Primary Examiner
Art Unit 2616